

(i) a nucleic acid of ORF-1 of Human Immunodeficiency Virus Type 1 (HIV-1) encoding the amino acid sequence:

MEQAPEDQGPQREPHNEWTLELLEELKNEAVRHFPRIWLHGLGQHIYETYGDT  
WAGVEAIIRILQQQLLFIHFRIGCRHSRIGVTQQRRANGASRS,

(ii) a nucleic acid of ORF-4 of Human Immunodeficiency Virus Type 1 (HIV-1) encoding the amino acid sequence:

MQPIQIAIAALVVVIIIAIVVWSIVIIEYRKILRQRKIDRLIDRLIERAEDSGNESEGEIS  
ALVEMGVEMGHAPWDIDDL, and

(iii) a nucleic acid of ORF-R of Human Immunodeficiency Virus Type 1 (HIV-1) encoding the amino acid sequence:

MGGKWSKSSVVGWPTVRERMRAEPAADGVGAASRDLEKHGAISSNTAAT  
NAACAWLEAQEEEEVGFPVTPQVPLRPMTYKAAVDLSHFLKEKGGLIHSQRQRDI  
LDLWIYHTQGYFPDWQNYTPGPGVRYPLTFGWCYKLVPVEPDKVEEANKGENTSLLH  
PVSLHGMDDPEREVLEWRFDSRLAFHHVARELHPEYFKNC; and

(b) detecting the formation of hybrids between said one or more nucleic acid probes and nucleic acid present in said biological sample.

36. (NEW) The method according to claim 35, wherein said probe is labeled with a label selected from the group consisting of a radioactive label, an enzymatic label, and a fluorescent label.

37. (NEW) An *in vitro* diagnostic method for detecting the presence or absence of nucleic acid of a Human Immunodeficiency Virus Type 1 (HIV-1) in a biological sample comprising:

FINNEGAN  
HENDERSON  
FARABOW  
GARRETT &  
DUNNER LLP

1300 I Street, NW  
Washington, DC 20005  
202.408.4000  
Fax 202.408.4400  
[www.finnegan.com](http://www.finnegan.com)

(a) contacting said biological sample with one or more nucleic acid probes comprising

(i) a nucleic acid of ORF-1 of Human Immunodeficiency Virus Type 1 (HIV-1) encoding the amino acid sequence:

MEQAPEDQGPQREPHNEWTLELLEELKNEAVRHFPRIWLHGLGQHIYETYGDT  
WAGVEAIIRILQQQLLFIHFRIGCRHSRIGVTQQRRARNGASRS and

(ii) a nucleic acid of ORF-4 of Human Immunodeficiency Virus Type 1 (HIV-1) encoding the amino acid sequence:

MQPIQIAIAALVVVIIIAIVVWSIVIIEYRKILRQRKIDRLIDRLIERAEDSGNESEGEIS  
ALVEMGVEMGHAPWDIDDL; and

(b) detecting the formation of hybrids between said one or more nucleic acid probes and nucleic acid present in said biological sample.

38. (NEW) The method according to claim 37, wherein said probe is labeled with a label selected from the group consisting of a radioactive label, an enzymatic label, and a fluorescent label.

39. (NEW) An *in vitro* diagnostic method for detecting the presence or absence of nucleic acid of a Human Immunodeficiency Virus Type 1 (HIV-1) in a biological sample comprising:

(a) contacting said biological sample with one or more nucleic acid probes comprising

(i) a nucleic acid of ORF-4 of Human Immunodeficiency Virus Type 1 (HIV-1) encoding the amino acid sequence:

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Washington, DC 20005  
202.408.4000  
Fax 202.408.4400  
[www.finnegan.com](http://www.finnegan.com)

MQPIQIAIAALVVAIIIAIVVWSIVIEYRKILRQRKIDRLIERAEDSGNEGEIS  
ALVEMGVEMGHAPWDIDDL and

(ii) a nucleic acid of ORF-R of Human Immunodeficiency Virus Type 1  
(HIV-1) encoding the amino acid sequence:

MGGKWSKSSVVGWPTVRERMRAEPAADGVGAASRDLEKHGAISSNTAAT  
NAACAWLEAQEEEVGFPVTPQVPLRPMTYKAAVDLSHFLKEKGGLIHSQRRQDI  
LDLWIYHTQGYFPDWQNYTPGPGVRYPLTFGWCYKLVPVEPDKVEEANKGENTSLLH  
PVSLHGMDDPEREVLEWRFDSSLAFHHVARELHPEYFKNC; and

G1  
(b) detecting the formation of hybrids between said one or more nucleic acid probes and nucleic acid present in said biological sample.

40. (NEW) The method according to claim 39, wherein said probe is labeled with a label selected from the group consisting of a radioactive label, an enzymatic label, and a fluorescent label.

41. (NEW) An *in vitro* diagnostic kit for detecting the presence or absence of nucleic acid of a Human Immunodeficiency Virus Type 1 (HIV-1) in a biological sample comprising:

(a) a composition comprising one or more nucleic acid probes comprising  
(i) a nucleic acid of ORF-1 of Human Immunodeficiency Virus Type 1  
(HIV-1) encoding the amino acid sequence:

MEQAPEDQGPQREPHNEWTLEELLEELKNEAVRHFPRIWLHGLGQHIYETYGDT  
WAGVEAIIRILQQLLFIHFRIGCRHSRIGVTQQRRARNGASRS,

(ii) a nucleic acid of ORF-4 of Human Immunodeficiency Virus Type 1  
(HIV-1) encoding the amino acid sequence:

MQPIQIAIAALVVVIAIIAVVWSIVIIEYRKILRQRKIDRLIDRLIERAEDSGNEGEIS  
ALVEMGVEMGHAPWDIDDL, and

(iii) a nucleic acid of ORF-R of Human Immunodeficiency Virus Type 1 (HIV-1) encoding the amino acid sequence:

MGGKWSKSSVVGWPTVRERMRAEPAADGVGAASRDLEKHGAISSNTAAT  
NAACAWLEAQEEEVGFPVTPQVPLRPMTYKAAVDLSHFLKEKGGLIHSQRRQDI  
LDLWIYHTQGYFPDWQNYTPGPGVRYPLTFGWCYKLVPVEPDKVEEANKGENTSLLH  
PVSLHGMDPAREVLEWRFDSRLAFHHVARELHPEYFKNC;

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(b) reagents for detecting the hybrids; and  
(c) a biological reference sample lacking nucleic acid recognized by said nucleic acid probe composition.

41. (NEW) The kit according to claim 41, wherein said probe is labeled with a label selected from the group consisting of a radioactive label, an enzymatic label, and a fluorescent label.

43. (NEW) An *in vitro* diagnostic kit for detecting the presence or absence of nucleic acid of a Human Immunodeficiency Virus Type 1 (HIV-1) in a biological sample comprising:

(a) a composition comprising one or more nucleic acid probes comprising  
(i) a nucleic acid of ORF-1 of Human Immunodeficiency Virus Type 1 (HIV-1) encoding the amino acid sequence:

MEQAPEDQGPQREPHNEWTLELLEELKNEAVRHFPRIWLHGLGQHIYETYGDT  
WAGVEAIRILQQLLFIHFRIGCRHSRIGVTQQRRARNGASRS and

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1300 I Street, NW  
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202.408.4000  
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(ii) a nucleic acid of ORF-4 of Human Immunodeficiency Virus Type 1 (HIV-1) encoding the amino acid sequence:

MQPIQIAIAALVVAIIIAIVVWSIVIIEYRKILRQRKIDRLIDRLIERAEDSGNESEGEIS  
ALVEMGVEMGHAPWDIDDL;

- (b) reagents for detecting the hybrids; and  
(c) a biological reference sample lacking nucleic acid recognized by said nucleic acid probe composition.

44. (NEW) The kit according to claim 43, wherein said probe is labeled with a label selected from the group consisting of a radioactive label, an enzymatic label, and a fluorescent label.

45. (NEW) An *in vitro* diagnostic kit for detecting the presence or absence of nucleic acid of a Human Immunodeficiency Virus Type 1 (HIV-1) in a biological sample comprising:

- (a) a composition comprising one or more nucleic acid probes comprising  
(i) a nucleic acid of ORF-4 of Human Immunodeficiency Virus Type 1 (HIV-1) encoding the amino acid sequence:  
MQPIQIAIAALVVAIIIAIVVWSIVIIEYRKILRQRKIDRLIDRLIERAEDSGNESEGEIS  
ALVEMGVEMGHAPWDIDDL and  
(ii) a nucleic acid of ORF-R of Human Immunodeficiency Virus Type 1 (HIV-1) encoding the amino acid sequence:

MGGKWSKSSVVGWPTVRERMRAEPAADGVGAASRDLEKHGAISSNTAAT  
NAACAWLEAQEEEEVGFPVTPQVPLRPMTYKAAVDLSHFLKEKGGLEGLIHSQRQQDI

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